Analogue Cellular Technologies

AMPS	Advanced Mobile Phone System. Developed by Bell Labs in the 1970s and first used commercially in the United States in 1983. It operates in the 800 MHz band and is currently the world's largest cellular standard.
C-450	Installed in South Africa during the 1980's. Uses 450Mhz band. Much like C-Netz. Now known as Motorphone and run by Vodacom SA.
C-Netz	Older cellular technology found mainly in Germany and Austria. Uses 450 MHz.
Comvik	Launched in Sweden in August 1981 by the Comvik network.
N-AMPS	Narrowband Advanced Mobile Phone System. Developed by Motorola as an interim technology between analogue and digital. It has some three times greater capacity than AMPS and operates in the 800 MHz range.
NMT450	Nordic Mobile Telephones/450. Developed specially by Ericsson and Nokia to service the rugged terrain that characterises the Nordic countries. Range 25km. Operates at 450 MHz. Uses FDD FDMA.
NMT900	Nordic Mobile Telephones/900. The 900 MHz upgrade to NMT 450 developed by the Nordic countries to accommodate higher capacities and handheld portables. Range 25km. Uses FDD FDMA technology.
NMT-F	French version of NMT900
NTT	Nippon Telegraph and Telephone. The old Japanese analogue standard. A high-capacity version is called HICAP.
RC2000	Radiocom 2000. French system launched November 1985
TACS	Total Access Communications System. Developed by Motorola. and is similar to AMPS. It was first used in the United Kingdom in 1985, although in Japan it is called JTAC. It operates in the 900 MHz frequency range.

Digital Cellular Technologies

A1-Net	Austrian Name for GSM 900 networks
B-CDMA	Broadband CDMA. Now known as W-CDMA (see below). To be used in UMTS.
Bluetooth	The technology enables short-range communication networks between consumer devices incorporating a Bluetooth interface, and is set to greatly improve the way consumers access data and services wirelessly.
Composite CDMA/TDMA	Wireless technology that uses both CDMA and TDMA. For large-cell licensed band and small-cell unlicensed band applications. Uses CDMA between cells and TDMA within cells. Based on Omnipoint technology.
CDMA	Code Division Multiple Access. There are now a number of variations of CDMA, in addition to the original Qualcomm-invented N-CDMA (originally just 'CDMA', also known in the US as IS-95. See **N-CDMA** below). Latest variations are B-CDMA, W-CDMA and

	composite CDMA/TDMA. Developed originally by Qualcomm, CDMA is characterized by high capacity and small cell radius, employing spread-spectrum technology and a special coding scheme. It was adopted by the Telecommunications Industry Association (TIA) in 1993. The first CDMA-based networks are now operational. B-CDMA is the basis for 3G UMTS (see below).
cdmaOne	First Generation Narrowband CDMA (IS-95). See above.
cdma2000	The new second-generation CDMA MoU spec for inclusion in IMT-2000. It consists of various iterations, inclusing 1xEV, 1XEV-DO, and MC 3X
cdma2000 1XEV	1xEV (Evolution) is an enhancement of the cdma2000 standard of the Telecommunications Industry Association (TIA). The CDMA 1xEV specification was developed by the Third Generation Partnership Project 2 (3GPP2), a partnership consisting of five telecommunications standards bodies: CWTS in China, ARIB and TTC in Japan, TTA in Korea, and TIA in North America. The 1xEV specification is known as TIA/EIA/IS-856 "CDMA2000 High Rate Packet Data Air Interface Specification." It promises around 300 kbps speeds on a 1.25Mhz channel.
cdma2000 1XEV-DO	1xEV-DO or data-only is an enhancement of the cdma2000 1X standard. It promises around 300 kbps speeds on a 1.25Mhz channel.
CT-2	A second generation digital cordless telephone standard. CT2 has 40 carriers x 1 duplex bearer per carrier = 40 voice channels.
CT-3	A third generation digital cordless telephone, which is very similar and a precursor to DECT.
CTS	GSM Corldless Telephone System. In the home environment, GSM-CTS phones communicate with a CTS Home Base Station (HBS), which offers perfect indoor radio coverage. The CTS-HBS hooks up to the fixed network and offers the best of the fixed and mobile worlds: low cost and high quality from the Public Switched Telephone Network (PSTN), services and mobility from the GSM.
D-AMPS (IS-54)	Digital AMPS, a variation of AMPs. Uses 3-timeslot variation of TDMA, also known as IS-54. An upgrade to the analogue AMPS. Designed to address the problem of using existing channels more efficiently, DAMPS (IS-54) employs the same 30 kHz channel spacing and frequency bands (824-849 and 869-894 MHz) as AMPS. By using TDMA instead of FDMA, IS-54 increases the number of users from 1 to 3 per channel (up to 10 with enhanced TDMA). An AMPS/D-AMPS infrastructure can support use of either analogue AMPS phone or digital D-AMPS phones. This is because the Federal Communications Commission mandated only that digital cellular in the U.S. must act in a dual-mode capacity with analogue. Both operate in the 800 MHz band.
DCS 1800	Digital Cordless Standard. Now known as GSM 1800. GSM operated in the 1,800 MHz range. It is a different frequency version of GSM, and (900 MHz) GSM phones cannot be used on DCS 1800 networks unless they are dual band.
DECT	Digital European Corldless Telephone. Uses 12-timeslot TDMA. This

	started off as Ericsson's CT-3, but developed into ETSI's Digital European Cordless Standard. It is intended to be a far more flexible standard than the CT2 standard, in that it has more RF channels (10 RF carriers x 12 duplex bearers per carrier = 120 duplex voice channels). It also has a better multimedia performance since 32kbit/s bearers can be concatenated. Ericsson has developed a dual GSM/DECT handset.
EDGE	UWC-136, the next generation of data heading towards third generation and personal multimedia environments builds on GPRS and is known as Enhanced Data rate for GSM Evolution (EDGE). It will allow GSM operators to use existing GSM radio bands to offer wireless multimedia IP-based services and applications at theoretical maximum speeds of 384 kbps with a bit-rate of 48 kbps per timeslot and up to 69.2 kbps per timeslot in good radio conditions.
E-Netz	The German name for GSM 1800 networks.
Flash-OFDM	Flash-OFDM (Orthogonal Frequency Division Multiplexing) is a new signal processing scheme from Lucent/Flarion that will support high data rates at very low packet and delay losses, also known as latencies, over a distributed all-IP wireless network. The low-latency will enable real-time mobile interactive and multimedia applications. It promises to deliver higher quality wireless service and better cost effectiveness than current wireless data technologies.
FDMA	Frequency Division Multiple Access
GERAN	GERAN is a term used to describe a GSM and EDGE (Enhanced Data rates for GSM Evolution) based 200 kHz radio access network. The GERAN is based on GSM/EDGE Release 99, and covers all new features for GSM Release 2000 and subsequent releases, with full backward compatibility to previous releases.
GMSS	Geostationary Mobile Satellite Standard, a satellite air interface standard developed from GSM and formed by Ericsson, Lockheed Martin, U.K. Matra Marconi Space and satellite operators Asia Cellular Satellite and Euro-African Satellite Telecommunications.
GSM	Global System for Mobile Communications. The first European digital standard, developed to establish cellular compatibility throughout Europe. It's success has spread to all parts of the world and over 80 GSM networks are now operational. It operates at 900 MHz.
IDEN	iDEN® (Integrated Digital Enhanced Network). Launched by Motorola in 1994, this is a Private Mobile radio system from Motorola's Land Mobile Products Sector (LMPS) iDEN technology, currently available in the 800 MHz, 900 Mhz and 1.5 GHz bands. It utilizes a variety of advanced technologies, including state-of-the-art vocoders, M16QAM modulation and TDMA (Time Division Multiple Access). It allows Commercial Mobile Radio Service (CMRS) operators to maximize the dispatch capacity and provides the flexibility to add optional services such as full-duplex telephone interconnect, alphanumeric paging and data/fax communication services.

iMode	Launched in February 1999, this fast-growing system from NTT DoCoMo uses compact HTML to provide WAP-like content to iMode phones.
IMT DS	Wideband CDMA, or WCDMA.
IMT MC	Widely known as cdma2000 and consisting of the 1X and 3X components.
IMT TC	Called UTRA TDD or TD-SCDMA.
IMT SC	Called UWC-136 and widely known as EDGE.
IMTFT	Well-known as DECT.
Inmarsat	International Martime Satellite System which uses a number of GEO satellites. Available as Inmarsat A,B,C,and M.
Iridium	Mobile Satellite phone/pager network launched November 1998. Uses TDMA for inter-satellite links. Uses 2GHz band.
IS-54	TDMA-based technology used by the D-AMPS system at 800 MHz
IS-95	CDMA-based technology used at 800 MHz
IS-136	TDMA-based technology
JS-008	CDMA based standard for 1,900 MHz.
N-CDMA	Narrowband Code Division Multiple Access, or plain old original 'CDMA'. Also known in the US as IS-95. Developed by Qualcomm and characterized by high capacity and small cell radius. Has a 1.25Mhz spread spectrum air interface. It uses the same frequency bands as AMPS and supports AMPS operation, employing spread-spectrum technology and a special coding scheme. It was adopted by the Telecommunications Industry Association (TIA) in 1993. The first CDMA-based networks are now operational.
Near Field Communication	NFC technology enables short-range communication networks between consumer devices incorporating an NFC interface, and is set to greatly improve the way consumers access data and services wirelessly.
PACS-TDMA	An 8-timeslot TDMA-based standard, primarily for pedestrian use. Derived from Bellcore's wireless access spec for licensed band applications. Motorola supported.
PCS	Personal Communications Service. The PCS frequency band is 1850 to 1990 MHz, which encompasses a wide range of new digital cellular standards like N-CDMA and GSM 1900. Single-band GSM 900 phones cannot be used on PCS networks. PCS networks operate thoughout the North America.
PDC	Personal Digital Cellular is a TDMA-based Japanese standard operating in the 800 and 1500 MHz bands.
PHS	Personal Handy System. A TDD TDMA Japanese-centric system that offers high speed data services and superb voice clarity. Really a WLL system with only 300m to 3km coverage.
SDMA	Space Division Multiple Access, thought of as a component of Third Generation Digital Cellular/UMTS
TDMA	Time Division Multiple Access. The first U.S. digital standard to be developed. It was adopted by the TIA in 1992. The first TDMA commercial system began in 1993. A number of variations exist.

Telecentre-H	A proprietary WLL system by Krone. Range 30km, in the 350-500 MHz and 800-1000 Mhz range. Uses FDD FDM/FDMA and TDM/TDMA technologies.
TETRA	**TE**rrestrial **T**runked **RA**dio **(TETRA)** is a new open digital trunked radio standard which is defined by the European Telecommunications Standardisation Institute (ETSI) to meet the needs of the most demanding professional mobile radio users.
TETRA-POL	Proprietary **TETRA** network from Matra and AEG. Does not conform to TETRA MoU specifications
UltraPhone 110	A proprietary WLL system by IDC. Range 30 km, in the 350-500 MHz range. Uses FDD FDM/TDMA technologies. The UltraPhone system allows 4 conversations to operate simultaneously on every 25kMhz-spaced channel. A typical UP 24-channel WLL system can support 95 full duplex voice circuits in 1.2kHz of spectrum.
UMTS	Universal Mobile Telephone Standard - the next generation of global cellular which should be in place by 2004. Proposed data rates of <2Mbps, using combination TDMA and W-CDMA. Operates at around 2GHz
W-CDMA	One of the latest components of UMTS, along with TDMA & cdma2000. It has a 5Mhz air interface and is the basis of higher-bandwidth data rates.
WiMAX	WiMax (802.16a) is a more robust standard for high-speed broadband wireless delivery to laptops and desktops. The position of the 802.16a standard parallels that of WLAN technology in the late 1990 s
WLL	Wireless Local Loop limited-number systems are usually found in remote areas where fixed-line usage is impossible. Most modern WLL systems use CDMA technology.